

Compost Toilet Proposal for Nakivale Refugee Settlement

1. Introduction

Nakivale Refugee Settlement is experiencing a significant influx of refugees from the Democratic Republic of Congo (DRC) since January the Ugandan Government has received more than 8000 families fleeing intense conflict, only 30% is the current coverage sanitation, As a result, there is a growing demand for proper sanitation facilities, but limited resources make it difficult for refugees to build adequate toilets, Every households can only access 7 Liter of water per day due to insufficient boreholes to access clean water, as result on 18% of these people can wash hand ,(Data shared by Nsamizi ,The main livelihood partner UNHCR Nakivale Refugee Settlement)This proposal addresses this urgent sanitation crisis by introducing compost toilets, a sustainable, culturally appropriate, and cost-effective solution.

2. Problem Statement

2.1 Sanitation Crisis Due to Refugee Influx

The increasing number of refugees has overwhelmed existing sanitation infrastructure. Currently, only 2 out of 10 households share a single pit latrine, which is in poor condition and lacks gender segregation. With more refugees arriving daily, the strain on these facilities continues to worsen.

2.2 Limited Resources for Toilet Construction

- 80% of refugees cannot afford to build proper toilets due to financial constraints.
- Many resort to makeshift or unsafe sanitation practices, increasing health risks.
- The lack of latrines contributes to open defecation and water contamination, heightening the risk of disease outbreaks.

2.3 Cultural and Hygiene Considerations

- 90% of refugees prefer squatting and using water for cleaning.
- The current shared pit latrines do not accommodate these hygiene practices, making them uncomfortable and underutilized.

3. Targeted Beneficiaries

This project specifically targets:

- Newly arrived refugees from DRC, who have fled their country due to conflict and insecurity.
- Vulnerable households that lack the resources to construct proper toilets.
- Women, children, and persons with disabilities, who are at higher risk of poor sanitation-related health issues.

4. Project Objectives

- Improve access to safe sanitation by providing compost toilets to vulnerable refugee households.
- Ensure cultural acceptability by designing squatting-friendly toilets.
- Promote gender-segregated sanitation facilities to enhance privacy and dignity.
- Introduce a sustainable waste management solution through composting.

5. Proposed Solution: Compost Toilets

Compost toilets are a low-cost, waterless, and environmentally friendly alternative to traditional latrines. The system efficiently separates solid and liquid waste, facilitating decomposition into organic compost.

5.1 Design Considerations

- Squatting Position: Designed to accommodate cultural preferences.
- Gender-Segregated Units: Separate toilets for men and women to ensure privacy and safety.
- Odor Control & Ventilation: Well-ventilated structure to prevent bad smells.
- Composting Chamber: Dual chambers to enable alternating use and decomposition.
- Adaptability Based on Water Availability:
 - In areas with sufficient water, minimal water-friendly features such as a small water container for hygiene can be integrated.
 - In water-scarce areas, the toilets will rely entirely on dry composting methods, using sawdust, ash, or dry leaves to absorb moisture and control odor.

6. Implementation Plan

6.1 Site Selection & Community Engagement

- Prioritize areas with the highest refugee influx and sanitation needs.

- Engage refugee leaders and community representatives in planning and execution.

6.2 Construction & Capacity Building

- Build 50 compost toilets, serving approximately 250 people.
- Train community members on toilet use, maintenance, and compost application.
- If water is available, integrate minimal water-friendly features. However, if water scarcity persists, the design will rely entirely on dry composting techniques.

6.3 Monitoring & Sustainability

- Regular assessment of hygiene and usability.
- Empower refugees to manage compost toilets through a community-led maintenance system.
- Promote compost reuse in household farming and environmental restoration.

8. Expected Outcomes

- Increased access to safe sanitation for vulnerable refugee households.
- Reduction in open defecation and sanitation-related diseases.
- Improved dignity and safety, especially for women and children.
- Sustainable waste management through composting for agricultural benefits.

9. Conclusion

With the ongoing influx of refugees, urgent action is needed to improve sanitation in Nakivale Refugee Settlement. Compost toilets offer a cost-effective, sustainable, and culturally appropriate solution. Implementing this project will protect public health, promote hygiene, and enhance the dignity of refugees. The approach will be adapted based on water availability, ensuring a fully functional system even in water-scarce conditions.